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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,367	01/06/2005	Thomas Buntin Threewitt	PPD 50705	5091

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EXAMINER	
SOROUSH, ALI	
ART UNIT	**PAPER NUMBER**
1616	

MAIL DATE	DELIVERY MODE
03/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/520,367	THREEWITT ET AL.	
	Examiner	Art Unit	
	ALI SOROUSH	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6 and 9-16* is/are pending in the application.

4a) Of the above claim(s) *13-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6 and 9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Receipt

Applicant's response filed on 12/18/2007 to the Office Action mailed on 09/18/2007 is acknowledged.

Status of the Claims

Claims 4 and 7-8 have been cancelled and claims 13-16 have been withdrawn. Therefore, claims 1-3, 5, 6 and 9-12 are currently pending examination for patentability.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. The rejection claims 1-3, 5, 6, and 9-12 under 35 U.S.C. 103(a) as being unpatentable over Cornes (International Application published under PCT WO 02/100173; published December 19, 2002) in view of Kent et al. (Technology of Cereals; published 1994) **is maintained**.

Applicant Claims

Applicant claims a method of controlling weeds while reducing injury in a sorghum crop by applying to the locus of the weeds mesotrione and prosulfuron.

Determination of the Scope and Content of the Prior Art (MPEP §2141.01)

Cornes teaches a synergistic composition comprising mesotrione and a second herbicide. (See abstract) Prosulfuron is an herbicide that may be added to the composition. (See page 4, Line 15). Cornes further teaches "the object of the formulation is to apply the compositions to the locus where control is desired by a convenient method. The 'locus' is intended to include soil, seeds and seedlings, as well as established vegetation. The composition can be used over a wide range of crops, such as corn (maize), wheat, rice, potato or sugarbeet. Suitable crops include those

which are tolerant to one or more of components (A) or (B), or to any other herbicide, such as glyphosate that can be additionally included in the composition." (See page 5, lines 20-26). Cornes also teaches "a herbicidal composition according to claim 3, wherein the weight ratio of component (A) to component (B) is between about 8:1 and 1:15." (See page 11, claims 4). Cornes further teaches "… the compostion contains components (A) and (B) in relative amounts sufficient to provide an application rate of at least 1.0 kg/ha, of which component (A) provides at least 0.02 kg/ha." (See page 5, lines 13-14). The compounds of the composition may be applied either separately or in combination as part of a two-part herbicidal system. (See page 5, Lines 17-19). The composition can be applied pre-emergence or post-emergence to the locus where control is desired. (See page 6, Lines 2-4).

Ascertainment of the Difference Between Scope the Prior Art and the Claims (MPEP §2141.012)

The instant application claims a composition to control weeds in a crop of sorghum. The difference between the instant claims and Cornes is that Cornes does not teach the use of the composition on sorghum. However, it is known in the prior art that mesotrione and prosulfuron have been used to treat cereal crops of which sorghum is a cereal crop. It is for that reason that the examiner joins Kent et al. with Cornes.

Kent et al discloses, "The principal cereal crops are wheat, barley, oats, rye, rice maize, sorghum, and the millets" (See page 1, paragraph 1).

Finding of Prima Facie Obviousness Rational and Motivation (MPEP §2142-2143)

It would have been obvious to one having ordinary skill in the art to modify the invention of Cornes to be applied on sorghum crop because cereal crops are taught by Cornes and sorghum is classified as a cereal crop, thus one would expect Cornes's composition to also work on sorghum. With regard to the application rate of mesotrione, Cornes discloses an application rate, which encompasses the instant rate of 50- 300 g/ha as recited in the claimed invention. In the absence of showing of the criticality of the narrower application rate disclosed in the instant invention, Cornes makes obvious the instant application rate. With regard to the amount of component B (prosulfuron) amounting to 0.5 – 400%, Cornes teaches a ratio of 8:1 and 1:15. Thus it would be obvious to one of ordinary skill in the art to manipulate the amount of herbicide B in view of the guidance provided by Cornes and to obtain the optimal concentration. For the foregoing reasons the instant method of controlling weeds would have been obvious to one of ordinary skill in the art at the time of the instant invention.

Response to Applicant's Arguments

Applicant argues that the composition taught by Cornes in which prosulfuron is a constituent of a tertiary mix of mesotrione, pyriftalid and prosulfuron which is useful for use in rice crops. Applicant further argues that it would not have been obvious from such a teaching to then use this herbicidal composition on sorghum crop. Applicant's arguments have been fully considered and found not to be persuasive. It is the examiners position that it would have been obvious to one of ordinary skill in the art to

apply a herbicidal composition as taught by Cornes on different types of crops, especially, crops of the cereal crop genus. Even assuming arguendo, that it would not be obvious to try the herbicidal composition of Cornes on sorghum crop, applicant claims the use of a herbicidal composition comprising mesotrione and second herbicide selected from prosulfuron, dicamba, 2,4-D, halosulfuronmethyl and quinclorac. As discussed in the Office Actions mailed on 08/29/2006 and 02/15/2007, Cornes teaches a composition comprising mesotrione and dicamba that would have been obvious to use on any cereal crops such as sorghum crop.

Applicant next argues that the composition comprising mesotrione and prosulfuron was found unexpectedly to provide a superior herbicidal properties and a reduced injury to the sorghum crop. Applicant's arguments have been fully considered but not found to be persuasive. Applicant's unexpected results are not commensurate in scope with the instant claims. Applicant has only shown that a composition of mesotrione (105.0 g/ha) with prosulfuron (20.0 g/ha or 40.0 g/ha) unexpectedly provided for a superior weed control and reduced injury to sorghum crop over mesotrione alone. Applicant has not shown data for all heribicidal concentrations and has not shown convincing unexpected data for all combinations of mesotrione with a secondary herbicide selected from prosulfuron, dicamba, 2,4-D, halosulfuronmethyl and quinclorac. For the foregoing reasons the rejection of claims 1-3, 5, 6, and 9-12 under 35 U.S.C. 103(a) is maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Soroush whose telephone number is (571) 272-9925. The examiner can normally be reached on Monday through Thursday 8:30am to 5:00pm E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ali Soroush
Patent Examiner
Art Unit: 1616

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616